



President's Message By Mike—AB6CV

This month we will focus on QRP, low power communications.

Typically this means transmitting with 5 watts of power or less. On the high frequency bands this is always a challenge. On VHF and UHF it is almost common place with the advent of hand-held transceivers. As hams we are required by the FCC to use the minimum amount of power necessary to establish communications. (I think most people ignore this rule.)

There is a whole group of hams that think it a challenge to communicate over vast distances using as little power as possible.. Milliwatts and even Microwatts in some cases are used. This kind of low power means you want to have your antenna and feedline in tip top condition. The antenna should have as much gain as possible in order to optimize the small power level put out by the transmitter. And SWR should be kept to 1:1 without a tuner in line if at all possible.

The small power output of QRP operation allows for some rather unique sources of energy to be used as power supplies.

Battery power, solar, wind, and even bicycle driven generators are typical sources for these QRP rigs. Alternate power sources is the topic of an upcoming SBARA meeting as well.

Keep up all your terrific volunteer efforts. There is a tremendous number of hours being volunteered by our members to all sorts of communication related activities. This is a really great way to introduce Ham Radio in the community.

I hope to see you all at the meetings.

Mike AB6CV

Happy St/ Patrick's Day

March Program

The Program for our March meeting will be entitled "QRP and the Elecraft Transceiver"

Our Programs Chairman Al Rendon will present ERIC SWARTZ—WA6HHQ the President of Elecraft. The meeting begins at 7:30 PM at our usual meeting place in Fremont on March 14, 2001.

Joins us for this exciting presentation!

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SBARA MEETING MARCH 21st.

Well sure, You can get excited for a while by building your own stuff. Even make some pretty decent replicas of what the real innovators, the leaders in ham radio, did twenty years ago. Or, like Eric Swartz, you can step out in front. Make something that's better. In fact, a lot better. Eric has come up with a killer Side-band rig, and a CW bucket that can hold its own with the best.



Top notch receiver specs are a must for Eric, so if they can hear that clean as a whistle signal of yours, you can work 'em. What we're getting to Folks, is Elecraft, as in K1 and K2, will be paying us a visit. Our March meeting will spotlight the engineering talents of Eric Swartz and friends at the hottest little amateur radio design shop around.

I don't get too worked up over CW rigs, but those of you who do, well this is some sweet piece of work. Maybe the best of the lot. Some guys think designing a QRP rig means lots of excuses for poor performance. Eric, well, you don't get excuses from him, you get performance to match your dreams. We're not talking fish can radios here, Guys. If this is getting' interesting, make sure you show up at the regular SBARA meeting room at 7:30 Wednesday night. That's the third Wednesday of the month, the 21st. And bring your dues, it's about time you became a member.

Before you get to the meeting, check out the Elecraft web site. It's interesting, and you will be able to follow the presentation more effectively.

www.elecraft.com

Getting to know our March meeting presenter Eric Swartz, WA6HHQ

First Licensed in 1971 as WN6HHQ. Interest in Ham Radio led to a degree in Engineering from Yale University (1979). Worked in Silicon Valley (I'm a 'start up addict') as a Design Engineer (In circuit uC emulators - Millennium Systems), Engineering Manager (IC Designs - Source III), and Head of Engineering (PC Peripherals and Robotic Software Duplications Systems - Mountain Computer.) In 1992 co-founded Verisys, Inc., the leading supplier of SCSI analysis instruments for the computer industry.

Started Elecraft with Wayne Burdick, N6KR, in 1998. Designed with Wayne the K2 all-band SSB/CW transceiver, and in 2000, the K1 dual-band CW rig. The K2 evolved out of our goal of designing the "ultimate QRP FD rig," and was first described at Pacificon, October 1997. Also responsible for managing the Sales, Manufacturing and Support operations at Elecraft.

Design interests are high performance receiver architectures, built in test capabilities and smart, micro-processor controlled radios and instrumentation. I'm also an avid SCUBA diver and underwater photographer. I've combined my SCUBA diving trips with mini DXpeditions, but I haven't figured out yet how to do Ham Radio under water..

73, Eric

GPSINIT/MiniTracker Workshop By — James Lee N1DDK

Report on the tracker workshop held 2/24/2001.

First I would like to thank my many helpers. Many of the trackers were completed and tested on the air during the workshop. The prize for the most thrilled to be on the air goes to AI, WT6K, who let at loud expression of joy at seeing his tracker on the mapping station set up by Jim, KE6IVA.

I have seen many of the trackers show up on the air.

A few notes I would like to add.

It was a labor of love to run the workshop, and share with my fellow hams.

I have 25 sign-ups and had enough for 29 kits. At the day of the workshop a few lucky members were able to scoop up the un-claimed kits.

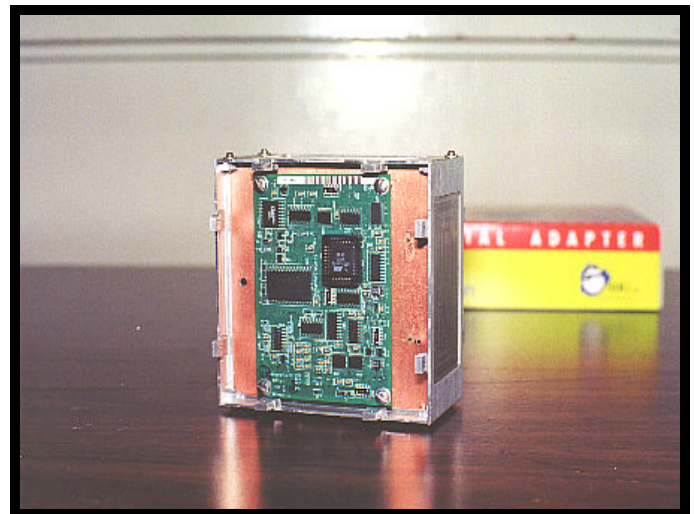
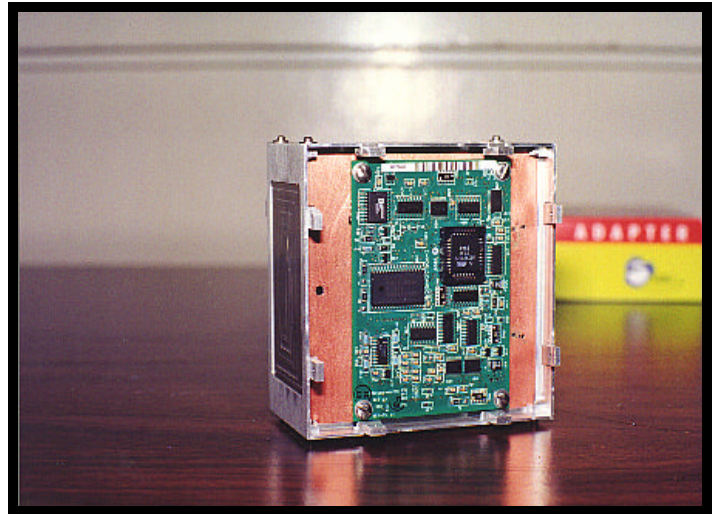
A few members have expressed an interest in a second batch/workshop. If we can collect 20 or more pre-paid sign-ups, I will order an other set of boards and parts. Let me know if you are interested.

Many people expressed an interest in cases. I have ordered a many of the die cast aluminum cases I used for mine. I will have them at my house if you would like to pick one up.

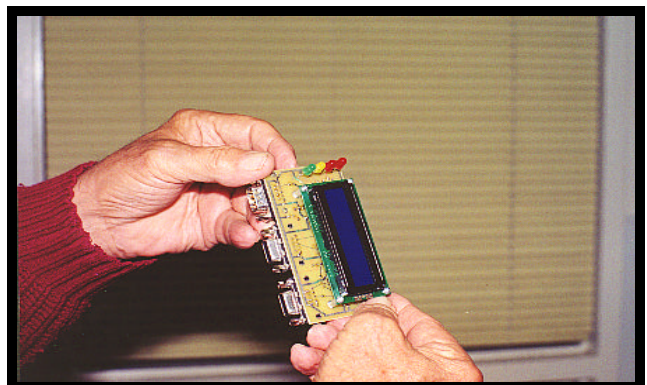
I will not be at the meeting but I will send someone with a set of them. They make excellent heatsinks so you can power the GPS from the tracker. They are paintable.

I'll be trading them for \$8.00.

SBARASAT Development Photos



Assembled MniTracker Board



Valley Of The Moon ARC Hamfest, Saturday, April 28

The Valley of the Moon Amateur Radio Club, W6AJF, is holding its annual ARRL Hamfest Saturday, April 28, 2001, from 8 a.m. to noon. The hamfest will be held at the Sonoma Valley Veteran's Memorial Building, 126 First Street West, Sonoma, California, just one block north of the central Sonoma Plaza. Anyone with a road map can easily find Sonoma by following Highway 12, which passes through the center of town in front of the Plaza. Admission is free to the hamfest, and hams are encouraged to bring the entire family. After the hamfest they can take a short walk to the center of town and visit the historic Sonoma Mission and Barracks and the many shops and restaurants surrounding the Plaza.

The event will include a walk-in V.E. exam session with registration starting at 9 a.m. Testing for all license elements begins at 10 am. There will be an electronics swap meet with both indoor and outdoor spaces available.

Set up will start at 7 a.m. with spaces renting for \$10. Space will be made available at no charge for amateur radio organizations for informational tables and displays.

The club will serve a full breakfast from 8 to 10 a.m., including eggs, pancakes, sausage, juice and coffee or tea for \$5.

Forums will include an operating QRP station, display of homebuilt equipment and a beginner's D.F. hunt. VOMARC will be participating in the QRP To The Field contest, which will run during the hamfest. Guest operators are cordially invited to sit in and take a turn operating the club station. For a map and printed directions to the hamfest, send a business size SASE to VOMARC, 358 Patten St., Sonoma, CA 95476. Talk-in will be on 145.35, -600, with a PL of 88.5.

For more information call Darrel, WD6BOR at 707-996-4494.

Some of the Sights from the January Meeting By Sam WS6S



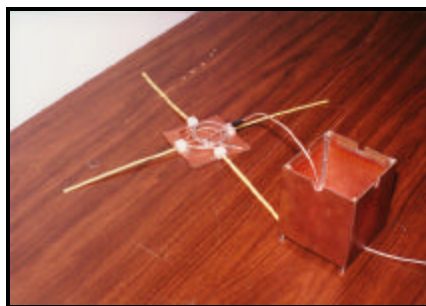
James With his Antenna



Mike Addressing the Club



SBARASAT Team Members



SBARASAT Model

International Space Station Reference

Ham Radio

When astronauts, cosmonauts and mission specialists from many nations fly on the International Space Station, they will have amateur, or ham, radio as a constant companion.

Since its first flight in 1983, ham radio has flown on more than two-dozen space shuttle missions. Dozens of astronauts have used the Space Shuttle Amateur Radio Experiment, or SAREX, to talk to thousands of kids in school and to their families on Earth while they were in orbit. They have pioneered space radio experimentation, including television and text messaging as well as voice communication. The Russians have had a similar program for the cosmonauts aboard the Russian Space Station MIR. When U.S. astronauts were aboard MIR in preparation for the long duration missions of the International Space Station, they used amateur radio for communication, including emergency messaging while MIR was in distress.



ARRISS was created in 1996 to meet certain objectives and was the logical outgrowth of the very successful amateur radio activities on the Mir space station and the space shuttle.

As human space flight moves into a new uncharted era, an organization called ARISS, which stands for Amateur Radio International Space Station, has been formed to design, build and operate equipment. In 1996, delegates from major national radio organizations and from AMSAT, which stands for the Radio Amateur Satellite Corporation, in eight nations involved with the International Space Station signed a Memorandum of Understanding to form ARISS.



This is a photo of the initial radio station amateur equipment while it was being tested. After testing, the equipment was stowed aboard Space Shuttle Atlantis for delivery to the International Space Station during STS-106.

NASA and the Russian space organization Energia have signed agreements that spell out the place of amateur radio on the station. A technical team, called ISS Ham, has been officially established to serve as the interface to support hardware development, crew training and on-orbit operations.

In the United States, the American Radio Relay League, which is also known as ARRL, and AMSAT provide leadership and consultation. They also donate and build hardware as well as making sure safety and qualification tests are successfully completed so the equipment can fly. The Russians have provided ports so that antennas can be mounted on the station's Zvezda Service Module -- the space station unit that provides living quarters for the astronauts and cosmonauts. United States and Russian teams have trained the astronauts and cosmonauts to operate the equipment. The Italian team has designed and built antennas. The German team has built sophisticated repeater stations that will allow crews to make recorded reports on their daily activities and permit hams on Earth better contacts with men and women aboard the station. ARISS hopes to have Slow Scan Television in place by 2001.

International Space Station Reference Part of the www.nasa.gov website and provided as an interest in the ISS.

Eric and His K1 and K2 Completed Transceivers

By Al Rendon—WT6K



Eric Swartz WA6HHQ and Staff
CEO of Elecraft



K1 and K2 Completed
Transceivers

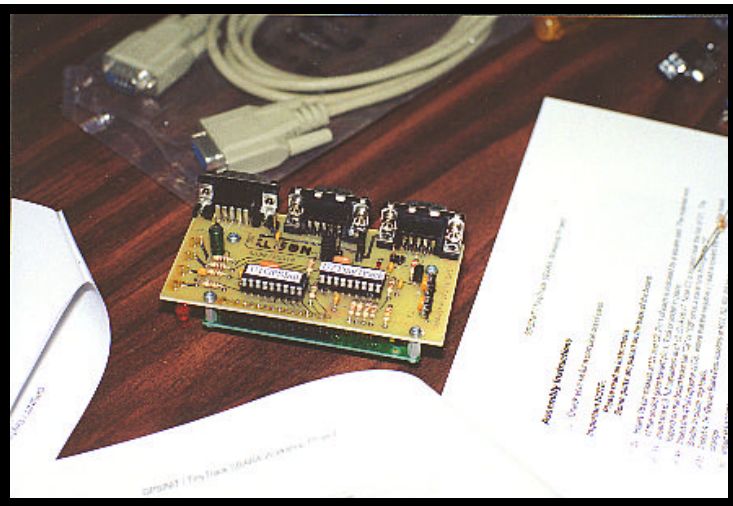
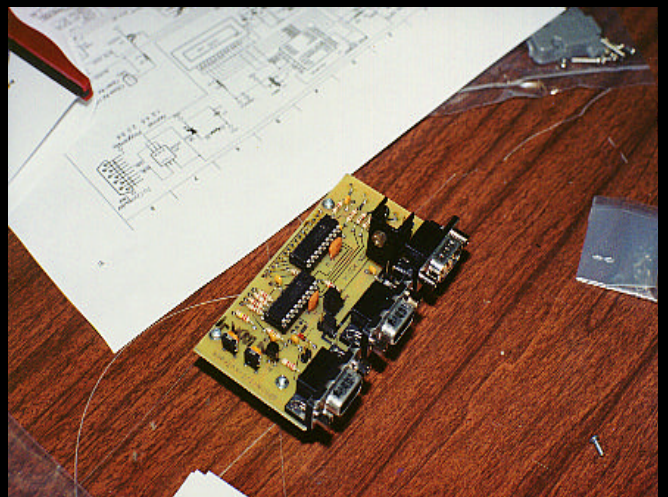
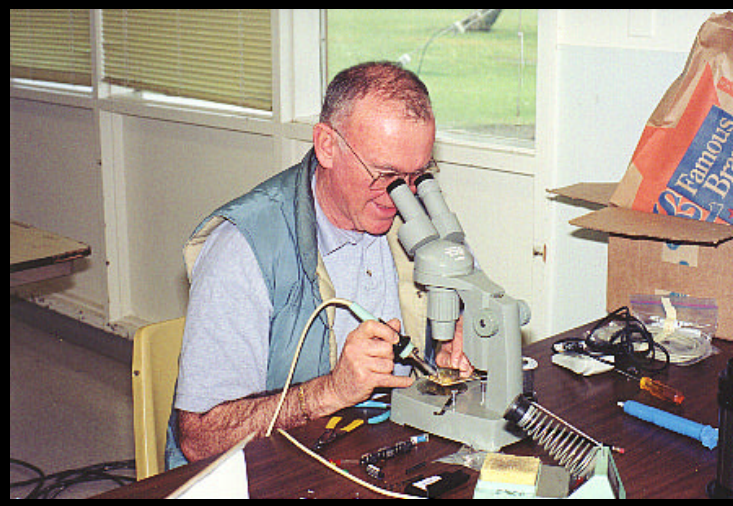
Elecraft can be reached at:
(831) 662-8345 or on the Web at:
<http://www.elecraft.com>

SBARA Meeting Programs

By Al Rendon—WT6K

MONTH	PROGRAM	PRESENTER	TITLE
FEBRUARY 21	PROPAGATION BASICS	AL RENDON	SBARA MEMBER
MARCH 21	QRP	ERIC SWARTZ	CEO ELECRAFT INC.
APRIL 18	OPEN	OPEN	OPEN
MAY 16	CONTESTING	DON AMYX	SBARA MEMBER
JUNE 20	ALL ABOUT FIELD DAY	ALAN KITTRELL	SBARA MEMBER
JULY 18	ADVANCED T-HUNTING	SYD TO DETERMINE	TBD

Al, Rudi, Alan assembling their MiniTrackers on February 24, 2001



James, Sanjay, and a group Shot During the MiniTracker Workshop



**** REMOVE AND SEND IN TODAY ****

If you haven't done so already, please read information below and then fill out the backside of this page

IMPORTANT NOTICE

It is that time of year to renew our SBARA membership. If you have sent your renewal form in we thank you. If you haven't, please continue reading.

There **ARE** many benefits to being a member of SBARA.

Here are some advantages:

- ?? Discount on accessories at HRO when SBARA membership card is presented at time of purchase.
- ?? A Subscription to the Groundplane newsletter (mailed to your address) is included in the membership.
- ?? No attendance fees to Saturday workshops if you are a member. You just pay for the parts if you participate.

Your membership dues support many SBARA functions. If you enjoy:

- ?? Field Day
- ?? Monthly meetings with presentation.
- ?? Saturday Workshops

Remember that these activities are made possible through your continued membership support.

So, Keep your membership current by sending in this renewal form with your check attached.

Membership Categories:

Regular:	\$15.00 / yr
Family:	\$20.00 / yr
Senior:	\$5.00 / yr
Senior - (65 Years or older)	

Thanks in Advance for your cooperation,

Adam Lau
Nathan Lau

Vice Presidents
SBARA 2001

Fill out Membership Form on reverse side of this page and mail to:

SBARA – South Bay Amateur Radio Association
C/o Jim Wood, Treasure
PO BOX 8377
Fremont, CA. 94537-8377

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ARRL MEMBER YES() NO()

Fill out for family membership:

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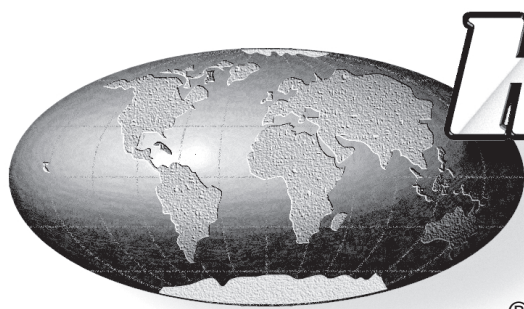
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